

Temnoma. It differs from the other species of the genus in its type of cell with very thick walls, irregularly bulging into the interior portion of the cell. The usually tripartite leaves with the unequal length of the sinuses may suggest an evolvment from the bisbifid leaves, in which the third segment has failed to divide. Occasional 4-partite leaves are present on the stem. *Temnoma Dusenii* (Steph.) Schuster, from Patagonia, also has tripartite leaves with unequal sinuses, but the cells are quite different, elongated with thinnish walls, and the leaf segments are broader without the long series of single cells. The element of unevenness in the leaf-segments of this species together with the thick-walled cells suggests a near relationship with *Lepicolea*, but in this genus there are zones of highly differentiated cells in the leaf laminae, and the plants themselves are very much larger.

Growing amongst *Acromastigum Mooreanum*, the dominant species in a mixture of *Adelanthus falcatus*, *Chiloscyphus Billardieri*, *C. cymbaliferus*, *Lophocolea australis*, *Bazzania involuta*, *Pseudomarsupidium piliferum*, *Lepidozia* sp. in subalpine forest, Table Hill, Stewart Island, 481, W. Martin, 5/2/47, sub-number 9355 Herb. E. A. H. ex No. 3137.

It is named for Dr R. M. Schuster, who has recently reinstated the genus *Temnoma* (1959).

***Temnoma corrugatum* (Steph.) Schuster (Text-fig. 2, figs. 23-25)**

Blepharostoma corrugatum Steph. *Hedw.* p. 315, 1893; *Spec. Hep.* 3, 63, 1909.
Temnoma corrugatum Schuster *Byrol.* 62, 240, 1959.

Plants pale, greatly resembling *Trichocolea lanata* "pulvinatim caespitosa". Stems simple or branched, semi-prostrate, to 3 cm long in plants seen (Stephani gives 6), 0.5 mm wide excluding spines, cortical cell cavities very small, rarely more than 30μ long and 20μ broad. Leaves crowded, concave, obliquely spreading, broader than tall, 0.7 mm long, excluding spines, x 1.1 mm broad, from a base of 3.5 mm broad, 4-5-lobed, usually 4, divided to $\frac{1}{2}$, sinuses obtuse, margins recurved; lobes lanceolate, occasionally unequally bifid, base fairly broad, widely diverging, apex and margins armed with curved spines with 8 or less single narrow elongate cells, $50-70\mu$ long x 28μ at the base, tapering to only 10μ wide at the apex; apical spines may be based on pairs of cells from a tapering lobe; cells divided by 2 walls wider apart at the ends, spines on the lobe margins 3-5 (Stephani gives 3), more or less in opposite pairs, arising at right angles to the lobe and ultimately curved. Cell cavities $20-25\mu$ in the upper portion of the lobes, irregularly increasing in length to as much as 60μ at the base, the incrassate walls taking on the appearance of elongate and confluent trigones. Underleaves considerably smaller than the leaves and occasionally reduced to only 2 lobes, but otherwise fairly similar. No reproductive organs seen, nor are any described by Stephani, but Schuster is probably right in referring the species to *Temnoma*.

The pale colour, lanceolate lobes with curved apical and lateral spines, and the incrassate areolation of both leaves and stem cortex at once distinguish this species from *T. pulchellum*. This species may be a connecting link between the genera *Temnoma* and *Anoplostoma*.

South Island: Revolver Cove, Preservation Inlet, coll. Dr H. H. Allan, Fiordland excursion, January to February, 1946, associated with *Herberta alpina* and *Lepidozia spinosissima* (syn. *Lepicolea longifissa* Steph.).

The type was from Stewart Island, coll. T. Kirk.